Money Isn't All You're Saving

Improve Energy Efficiency with High Efficiency HVAC Systems

Builder Guide

DESCRIPTION

Frequently home buyers do not carefully consider the performance of HVAC equipment in their new home purchase decision. But, long-term energy costs are a major expense for most homeowners. Over a ten-year period, the average home owner spends more than $10,000 for heating and cooling. ENERGY STAR labeled high efficiency HVAC equipment reduces these costs. Heating and cooling equipment qualifies for ENERGY STAR if it meets the required efficiency levels specified in the adjoining table. Thermostats qualify if they provide a programmable set-back capability. When you equip your homes with ENERGY STAR HVAC equipment your customers can save thousands of dollars in home heating and cooling costs over the life of the equipment. They also offer the additional benefits of improved comfort, quieter operation, longer life, and in some cases safer operation. For these reasons, high efficiency HVAC equipment are an important component of ENERGY STAR labeled homes.

BENEFITS

Providing a comfortable, energy efficient house with high efficiency HVAC equipment can increase customer satisfaction, reduce callbacks, and increase referrals. This can increase business and profits.

❑ High efficiency HVAC equipment saves energy.

High efficiency HVAC equipment can reduce utility bills by 10 - 30% over minimum efficiency equipment. For a typical household this can mean hundreds of dollars savings per year. These energy cost savings can represent a 20 to 40 percent return on investment after taxes for the extra cost of high efficiency equipment! And the energy savings go on.

ENERGY STAR Qualifying Efficiencies

ENERGY STAR HVAC Product	Cooling	Heating
Gas and Oil Furnaces	-	90%+ AFUE
Gas and Oil Boilers	-	85% AFUE
Split System Air Source Heat Pumps and Central A/C	13 SEER	8 HSPF
Single Package Air Source Heat Pumps and Central A/C	12 SEER	7.6 HSPF
Geothermal Heat Pumps	13/16 EER	3.1/3.7 COP

❑ High efficiency HVAC equipment improves comfort.

High efficiency HVAC equipment can improve home comfort several ways with more even heating and cooling and quieter operation.

❑ High efficiency HVAC equipment feature higher quality components that last longer.

The quality construction, improved technology, and attention to detail found in high efficiency HVAC products usually results in longer equipment life and often longer warranties on key components.

❑ High efficiency HVAC equipment are available, proven technologies.

Leading manufacturers of nearly all types of HVAC equipment have signed agreements with the EPA to manufacture and promote high efficiency heating and air-conditioning products. ENERGY STAR labeled HVAC equipment include: furnaces, boilers, air conditioners, air-source heat pumps, geothermal systems, gas heat pumps, and thermostats.

❑ Installation of high efficiency HVAC equipment is hassle-free.

Many HVAC contractors are already experienced in the installation of high efficiency HVAC equipment. Providing high efficiency HVAC equipment usually requires minimal changes in your construction practices.

❑ High efficiency combustion appliances are safer.

Most high efficiency combustion appliances (e.g., furnaces, boilers, and hot-water heaters) are direct vented units, without the need for a chimney stack. This improves efficiency and eliminates the risk of back-drafting combustion gases into the home. With increasing concern about Carbon Monoxide, this can be a strong selling feature.

❑ High efficiency combustion appliances save on construction costs.

Direct vented combustion appliances are vented directly through walls, and do not require a chimney stack. This may save on materials and construction costs, and offset some of the increased costs of high efficiency HVAC equipment. They may also offer more design flexibility by saving 2 to 4 square feet of living space.

INTEGRATION

❑ Right-sized energy efficient HVAC equipment can provide additional savings.

When combined with other home energy efficiency features such as increased insulation and air-tight construction, right-sized HVAC equipment can provide additional first cost savings. Since right-sized equipment is smaller, there can be lower costs that can cover a significant portion of the added cost of high efficiency cooling equipment. The key to achieving this additional benefit is carefully sizing the equipment, accounting for energy efficient features and avoiding "rule-of-thumb" sizing techniques. See fact sheet on "Right Sizing HVAC Equipment" for more information.

❑ Installation of high efficiency combustion appliances requires coordination with subcontractors.

Direct vented combustion appliances are vented directly through walls, instead of through a chimney stack. Both masonry and framing crews should be coordinated with the installation of direct vented equipment.

RESOURCES

- ❑ For more information on ENERGY STAR HVAC Program and qualifying equipment, call 1-888-STAR YES.
- ❑ *ARI Directories of Certified Air-Conditioning Products*, Air-conditioning and Refrigeration Institute, 1996. Available at 703-524-8800.
- ❑ *GAMA Directory of Certified Efficiency Ratings for Residential Heating and Water Heating Equipment*, Gas Appliance Manufacturers Association, 1996. Available at 703-525-9565.